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The Maryland Fruit Grower

April, 1935

Maryland State
Horticultural Society

TREE BANDING PAYS PROFITS . . .

READ WHAT U. S. AUTHORITIES SAY:

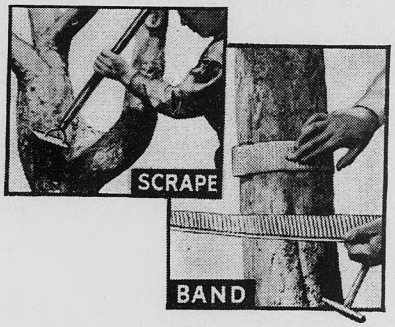
"Unquestionably the most effective supplementary measure ever devised for fighting the codling moth is the chemically treated band.***"
—E. J. Newcomer, U.S.D.A.

"Chemically treated codling moth bands are self-working and kill practically all of the codling moths that spin their cocoons in contact with them."—Dr. E. H. Siegler, U.S.D.A.

"A total cost of 14c per tree to avoid 85% of the normal attack of second brood worms and to reduce the winter carry-over of larva 90% should not seem exhorbitant to any fruit grower who is facing the problem of codling moth control." — H. N. Worthley, Pennsylvania State College, From Journal of Economic Entomology, April, 1934.

"The width of the band is secondary in importance to the amount of chemical coating * * * a band with only half the desired amount of chemical coating will likely be costly at any price."
—Dr. W. S. Hough, Virginia.

BAND YOUR TREES To Kill Codling Moth Worms — Cut Wormy Fruit Losses 75 per cent



TREE banding pays! A single band has killed as many as 1300 worms. Yet this protection costs only a few cents per tree.

American Cyanamid & Chemical Corporation does not make tree bands. But we supply Aero Brand Beta Naphthol and Cod-Ban to reputable tree-band manufacturers in every apple section.

FREE. Send your name and address for free leaflet giving complete instructions for preparing trees for banding and name of nearest tree-band manufacturer.

AMERICAN CYANAMID & CHEMICAL CORP.
Insecticide Department
30 Rockefeller Plaza **New York, N. Y.**

COD-BAN (Trade Mark) FOR COLD DIP TREE BANDS

BETA NAPHTHOL AERO BRAND BETA NAPHTHOL FOR HOT DIP TREE BANDS

The Maryland Fruit Grower

Published Monthly by the Maryland State Horticultural Society

Edited by the Secretary, A. F. Vierheller, Extension Horticulturist

Vol. 5 **April, 1935** **No. 4**

BEES FOR POLLINATION

George J. Abrams, Specialist in Apiculture
University of Maryland

The use of honeybees in orchards has been practiced by a relatively few fruit growers for years, with results justifying a more popular interest of these valuable carriers of pollen.

For years it has been realized that there is a definite need for more insects in the orchard at blossom time to bring about cross-pollination of fruit trees and the orchardist has turned to the honeybee to meet this need. While the theory of using honeybees is sound and the practice has been proved to be practical, widespread use of bees has gained momentum slowly. Orchardists who have used bees intelligently for orchard pollination are their staunchest allies. Those who have not, in most cases, have been negligent, not because they are uninformed or skeptical of the usefulness of bees, but because of a lack of practical knowledge of how best to obtain and manage colonies, a lack of time to devote to their care, a mistaken and exaggerated notion of their alleged ferocity, and possibility by the groundless legend that honeybees injure fruit.

While it is true that there are numerous species of insects other than honeybees which visit flowers for nectar, and incidently transfer pollen from one flower to another, it does not follow that these insects can be depended upon to adequately perform this important task. There are several reasons for lacking confidence and not placing dependence on them. First, many of these insects die in the egg, or pupal stage during the winter. This winter mortality is high and greatly decreases the population of ordinary insects. True, they increase in number back possibly to their original specie population later on in the summer, but it is too late then as fruit has been set by that time. Bumble bees for instance, overwinter as adults. Fertile queens hibernate and with the coming of settled weather begin egg laying and the building up of a colony. They are valuable pollenizers as individuals, but in point of numbers they are deficient. It is seldom that a single overwintering queen bumblebee is able to start a colony in the early spring and increase it in population to the point where there are enough individuals to do a thorough pollenizing job.

Now the question often raised is "What's the matter with wild honeybees?" The answer is of course, "Nothing,—provided there are enough bee trees around, the colonies in these bee trees are strong at blossom time and the weather is warm and clear enough to allow long bee flights." That is a simple answer but it carries a world of meaning. Let us examine it. It is full of "ifs, ands and buts" not apparent in the wording.

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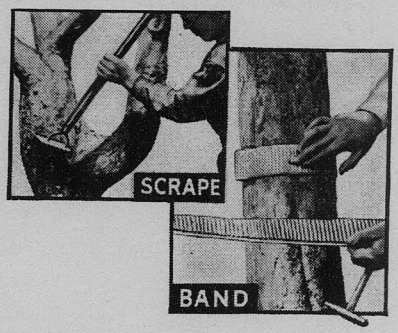

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"Provided there are enough bee trees." The weakness of this is at once apparent. There just are not as many bee trees or wild colonies now as inhabited the countryside fifty years ago. Vast acreage of virgin timber have

been cut. The encroachment of civilization has taken its toll of wild bees. Particularly in the regions of large orchards the natural honey bee population has been decreased. Timber has been lumbered off and the replanted apple and peach trees, shaped and pruned the modern production requirements do not provide favorable abodes for bee colonies.

Let us look at the second condition, "Provided—the colonies are strong enough at blossom time." There is plenty of condition here also. It is axiomatic among beekeepers that a neglected colony of bees will not remain strong. That is, strong as compared to well cared for colonies under the management of a capable beekeeper. Neglected colonies do not winter well. They either succumb outright during the winter or early spring, or become so weakened during the winter that rapid building up in the spring, so necessary to early spring strength for pollenization, is delayed until after blossom time when it is too late. True, many neglected colonies do obtain considerable strength by middle summer, but this strength is usually divided eventually by natural swarming. The beekeeper can prevent this weakening by swarming in most cases, through timely manipulations not familiar to the uninitiated.

Now let's examine the third and last condition, "Provided—the weather is warm and clear enough to allow long bee flights." This condition holds good for both colonies in bee trees and colonies operated by beekeepers, and is often the fulcrum upon which is balanced the whole success or failure of a bee-pollination project. The following is not an uncommon occurrence. An orchardist becomes convinced that he cannot depend upon ordinary insects or bee trees for his pollen spreaders. He then either rents or buys strong colonies from a nearby beekeeper, and places them evenly in his orchard. Of course he has previously ascertained that the right pollenizing varieties are interspersed throughout the orchard. He then confidently expects a good set —and only tough luck will prevent fine pollenization with these essentials provided. This tough luck manifests itself in rainy, cold or windy weather. And so we come to the third condition included in the answer to "What's the matter with wild honeybees."

Rain stops flight completely. Even a sudden shower of short duration, on an otherwise favorable day, will reduce the day's total flight by ten per cent or more. Luckily, however, full flight is not necessary to effective pollenization. Cloudy weather does restrict the range of flight, hence the advisability of distributing colonies evenly throughout the orchard.

The honeybee is a cold blooded animal, whose body rapidly assumes the temperature of the air immediately surrounding its body. For this reason it is obvious that cold weather either completely stops flight or greatly retards it. Free flights of short duration are possible at 65° F. and at 70° F. Full flight can be expected.

Often overlooked by those unfamiliar with the habits of bees, is the flight restricting effect of wind. The bees body is extremely light in relation to its body surface, and hence is severely buffeted about in flight during windy weather. Some wag has said that what we need is a streamlined bee with a heavier chassis. It is often the case that in otherwise favorable weather the hampering effect of wind will so materially decrease the pollenizing flight as to discourage a new renter of bees. However, if properly placed throughout an orchard, bees will usually find it possible to effect a pollenizing flight on the leeward side of trees, even during windy weather.

These restricting factors to bee flight—rain, cold and winds—are discussed, not to discourage the orchardist, but to familiarize him with the limits to which bees can go. Strong hives of bees, if placed directly within an orchard, may be fairly effective even when severely hampered; weaker colonies in relatively few bee trees, well without the orchard, can be of little value.

The value of renting colonies can be summed up briefly as follows: Bees are the only insects it is possible to move into an orchard in any desired number; strong colonies can be rented from first-class beekeepers at a nominal sum, and in spite of probable unsettled weather during blossom time there is seldom a year in which a day or two of good flight is not possible and where sufficient number of bees are present, that is all the time needed to do the job.

From foregoing statements indicating the factors influencing effectiveness of the honeybees' flight, it may be inferred that no set rules can be advocated for the placing and the number of colonies necessary in any given orchard. During ideal weather, bees two miles distant may be of definite value to an orchardist, but should the weather be cool and cloudy, it is doubtful if bees one-half a mile away will be of use. Distribution of colonies evenly throughout an orchard insures the fruit grower obtaining maximum benefits of any flights possible. It means that even on cool, overcast days, permitting only short flights, he will receive some benefits and that on windy days permitting limited flights, the bees will work in sheltered places on the leeward sides of trees. In general, colonies should be scattered in all orchards regardless of size. It is possible that orchards under 10 acres in area will be

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NITROGEN is best supplied by top-dressing your trees with
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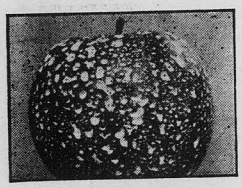
For Longer and Better Protection Against Codling Moth

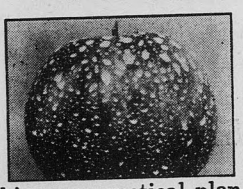
HERE'S THE TRUTH ABOUT THE KILLING POWER OF S-W ARSENATE OF LEAD

Sherwin-Williams Arsenate of Lead does not contain any cheap ingredient or astringent. It is just 98 per cent pure Arsenate of Lead possessing physical properties that insure a high deposit uniformly distributed as a blotchy covering on your apples. Facts based on scientific research are what you want. These two apples selected at random and sprayed under identical laboratory conditions tell their own story.

There is no substitute for KILLING POWDER when Codling Moth attacks. And only a hard-hitting, two-fisted Arsenate of Lead can stop codling moth larvae. Before you experiment, remember it costs no more to use S-W Arsenate of Lead. It costs no more to have its 50% increased deposit unhindered by deflocculators or astringents.



Lab. No. 1431—This apple was given four sprays of Sherwin-Williams Arsenate of Lead—3 pounds to 100 gallons of water. Total deposit 143 micrograms of unadulterated arsenic oxide per square inch . . . **just 50% more killing power to the square inch than its sister apple, sprayed under identical conditions, but using Arsenate of Lead containing an astringent.** S-W Arsenate of Lead contains no deflocculator or astringent, insuring the maximum possible deposit and high toxicity.



Lab. No. 1432—This apple, identical in every respect to the one used in test 1431, was sprayed with an astringent type of Arsenate of Lead stated to contain 93% active ingredients and an alum content of 2¼% to 3%. Total deposit under identical spraying conditions yielded only 99 micrograms of arsenate oxide per square inch.

Codling Moth Control Service Is Yours—FREE

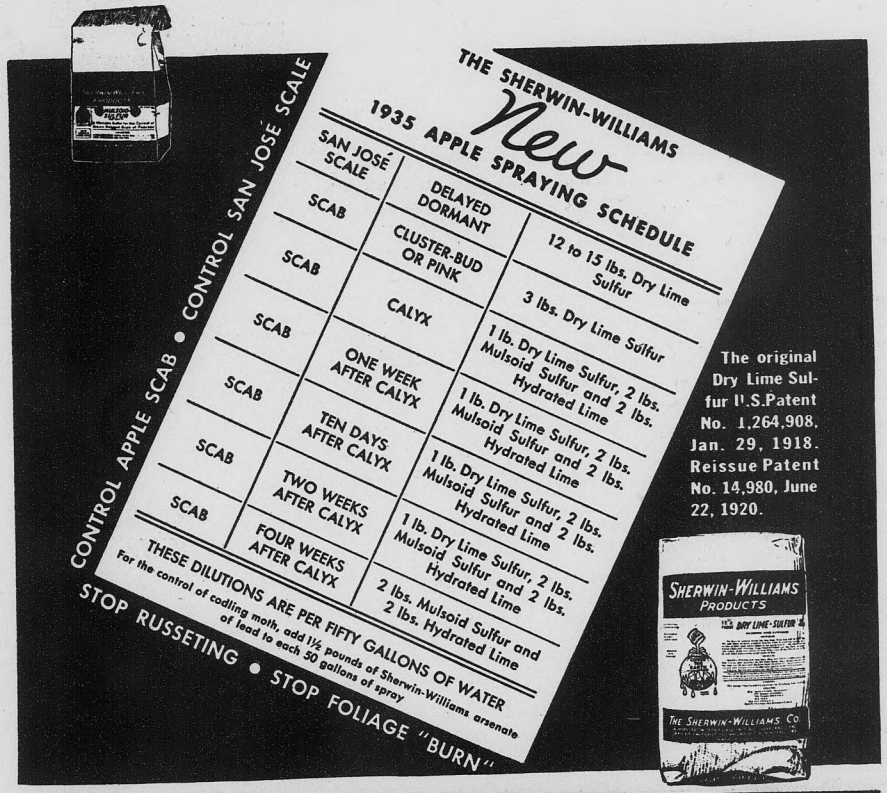
This new practical plan tells you how and when to spray, offers definite helpful information on trapping codling moths, and banding trees to catch the worms. This service is yours without charge . . . Write **THE SHERWIN-WILLIAMS CO., Insecticide Department, 101 Prospect Avenue, Cleveland, Ohio.**

SHERWIN-
SPRAY AND DUST

For Scab Control Fine Color and Finish

use the new

DRY LIME SULFUR MULSOID SULFUR schedule


THE SHERWIN-WILLIAMS New
1935 APPLE SPRAYING SCHEDULE
SAN JOSÉ SCALE
SCAB
DELAYED DORMANT
12 to 15 lbs. Dry Lime Sulfur
CLUSTER-BUD OR PINK
3 lbs. Dry Lime Sulfur
CALYX
1 lb. Dry Lime Sulfur, 2 lbs. Mulsoid Sulfur and 2 lbs. Hydrated Lime
ONE WEEK AFTER CALYX
TEN DAYS AFTER CALYX
TWO WEEKS AFTER CALYX
FOUR WEEKS AFTER CALYX
THESE DILUTIONS ARE PER FIFTY GALLONS OF WATER
For the control of codling moth, add 1½ pounds of Sherwin-Williams arsenate of lead to each 50 gallons of spray.
2 lbs. Mulsoid Sulfur and 2 lbs. Hydrated Lime
CONTROL APPLE SCAB • CONTROL SAN JOSÉ SCALE
STOP RUSSETING • STOP FOLIAGE "BURN"
The original Dry Lime Sulfur U.S.Patent No. 1,264,908, Jan. 29, 1918. Reissue Patent No. 14,980, June 22, 1920.
SHERWIN-WILLIAMS PRODUCTS
DRY LIME-SULFUR
THE SHERWIN-WILLIAMS CO.

WILLIAMS MATERIALS

adequately taken care of by colonies placed along one edge. However, it must be borne in mind that scattering the colonies allows the individual bee to make more round trip flights per day under any climatic conditions than would be possible if each trip of necessity was longer.

Strong colonies are of much more value than weaker ones. One strong colony can successfully work over four acres of trees, while it is necessary to place weaker colonies and package bees at the rate of one to the acre. A strong colony should be placed in the center of each four acres and the weaker colonies and package bees 200 feet apart each way.

It can be safely recommended that where strong, established colonies can be rented or developed by an orchardist they will prove more satisfactory than package bees. Renting will prove more convenient to the orchardist than orchard package bees, but the expense will be slightly more per colony. However, the rented, established colony will send more worker bees into the field than the orchard package. It will also send out more bees on cloudy or cool days and it will send them our earlier in the morning.

Rented colonies are recommended when the orchardist desires no personal contact with the colonies and when strong colonies can be secured from a reliable beekeeper.

It is recommended that colonies be owned by an orchardist (starting either with established colonies purchased from a local beekeeper, or starting with package bees and new equipment) when he himself or one of his employees has the inclination and the time to study and become proficient in apiary management, or when a competent beekeeper can be hired to care for them. Under these essential conditions owning an apiary is the best of all plans.

Buying package bees is recommended in cases where the orchardist cannot rent strong colonies locally, does not desire to become a beekeeper himself, and has no interest or capable employee to handle them. In this case the only course left is to secure package bees.

DESTROY CURCULIO—CLEAN UP YOUR ORCHARD

Mr. C. Graham, Field Entomologist states that the peach curculio overwinters in fence rows, terrace banks, grass in the orchards, and in woods adjacent to the orchard. Experiments have shown that a large number of these overwintering adults can be destroyed by cleaning up and burning over such places. The woods should be burned back for a distance of 300 yards and this should be done when the woods are dry so that the trash will burn as closely to the ground as possible.

Records made in western Maryland for the past five years show that curculio began entering the orchards between April 25 and May 5. Mr. Graham, therefore, suggests that all growers who have been bothered with curculio make a special effort to burn over the trashy places in and adjacent to their orchards before April 25.

This is a great help in destroying curculio before it starts injuring apples, plums, pears and peaches.

PRE-BLOSSOM SPRAYS

J. W. Heuberger, Assistant Pathologist
University of Maryland

This year the pre-blossom spray is of extreme importance for the reason that more than one spray will have to be applied if your hope to control scab. This spring we have the unusual situation of both the scab fungus and the trees being earlier than usual, the scab being much earlier than the trees. Thus, scab spores are being discharged in the western part of the State while trees of the late varieties are still in the late delayed dormant stage. The discharge of the scab spores goes on with each wetting rain for a period of several weeks. All the new growth made by the trees must be protected against the spores. Thus, more than one spray will be required to control scab.

The weather this spring has been very favorable for the early development of scab. Examinations for scab spore discharge were begun on March 18th at Salisbury. At this date the buds were still in the delayed dormant stage and the scab spores had not developed. A second inspection was made on March 25th at Salisbury, Maryland. At this date the buds had just passed the delayed dormant stage and the spore sacs of the scab fungus were well developed. However, no spores were found. A third inspection was made at Salisbury on April 2-4. Mature scab spores were found in the spore sacs on April 2nd. Thus, spore discharge would commence with the next wetting rain. At this date the cluster buds were still stuck together. Leaves from Montgomery, Prince George's and Charles counties had practically mature spores on April 3rd, while material from Frederick, Harford and Cecil counties had practically mature spores on April 4th. On April 6th, mature spores were found on leaves at Boonsboro, Maryland. On this date the trees, with the exception of early varieties, were still in the late delayed dormant stage.

The weather for the past week has been favorable for scab and unfavorable for the development of the trees. Concentrated lime-sulfur (32° Baume) 2½ gallons to 100 gallons of water is recommended for best control of scab at this time. Spray thoroughly and often.

RECORDS

Mr. W. B. Baughman, of Muskingum Fruit Farm, New Concord, Ohio, reported before Ohio State Horticultural Society, his methods of record-keeping. The records concern a 40-acre orchard, and the figures are surprising. Maybe another growers' figures will not agree, but the items included should be of main interest for comparison with other records.

The author makes the point that figures should be so kept that we can determine the value received from certain expenditures of both time and money. For instance, what did it cost to fertilize a bushel of apples and what value was received? Also total expenditures are not cash, alone, but depreciation, depletion (loss or removal of trees) and aging of trees beyond their prime. Mr. Baughman considers that a $1000 tractor should receive 8 to 10% investment charge and 10% depreciation for each crop, also a 2½ to 4% depreciation charge on dwelling, barn, packing house, storage, etc., if new, and much more if old. He also figures that if all development costs on

trees from planting to bearing, are made to include actual money costs, plus owner's labor, interest on investment, etc., a ten-year old tree would cost about $8.00 to $10.00.

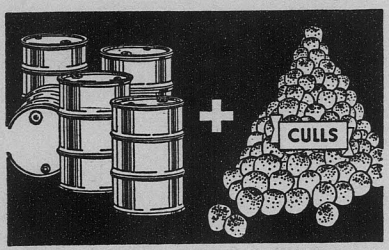
The author gives the following actual figures on a 40-acre orchard.

PRODUCTION COSTS:	1932 Total	1932 Per Bu.	1933 Total	1933 Per Bu.
Wages—Pruning	$ 332.77	.023	$ 393.08	.026
Thinning	186.65	.013	366.43	.025
Mowing and Cultivation including use of Team	259.45	.018	132.82	.009
Fertilizer and Labor applying	125.30	.009	328.48	.022
Spraying—Material used	380.77	.027	446.05	.030
Labor including Team	334.18	.023	264.42	.018
Dep. Repairs, Oil, Gas, etc.	161.94	.011	133.95	.009
Management and Office Expense	380.65	.027	342.50	.023
	$2,159.71	.151	$2,407.73	.162
INVESTMENT CHARGES—On Land Orchard, etc., including Taxes	$2,608.44	.182	$2,689.15	.181
ACTUAL Production Costs	$4,768.15	.333	$5,096.88	.343
HARVESTING COSTS:				
Wages—Picking	$ 614.61	.043	$ 678.78	.045
Grading and Sizing, Packing	866.79	.061	745.44	.051
Hauling from Orchard to Stand, Market, etc.	446.99	.030	172.13	.012
Dep. and Repairs on Equipment	102.62	.007	143.27	.010
Management, Office and Overhead	432.50	.031	419.50	.028
	$2,463.51	.172	$2,159.12	.146
BASKETS, PADS, LINERS, etc.	1,958.18	.137	1,614.12	.109
ACTUAL Harvesting Costs	$4,421.69	.310	$3,773.24	.255
MARKETING COSTS:				
Trucking Charges—own Trucks	$1,088.25	.076	$ 571.56	.038
Traveling Expenses—all kinds	147.53	.010	214.00	.014
Advertising, Labels, etc.	419.04	.030	371.64	.025
Commissions to Jobbers, etc.	309.54	.021	450.58	.030
Telephone and Telegraph	143.24	.010	63.97	.004
Management, Office and Overhead	416.00	.029	635.00	.043
ACTUAL marketing Costs	$2,523.60	.176	$2,306.75	.155
ACTUAL Total Costs—**All kinds	$11,713.44	.818	$11,176.87	.753
ACTUAL CROP—Each Year	14,336 Bu.		14,873 Bu.	

**Storage Charge, Depreciation on Dwelling and other building, and Depletion charges on orchard not included in above. This would bring actual costs near the DOLLAR a BUSHEL mark.

HAVE YOU READ THE ADVERTISEMENTS?

What does it really cost to control CODLING MOTH?



COST + LOSS = REAL SPRAY COST

• The real cost is not the cost of the spraying . . . but the *cost of the spraying* plus the *loss from wormy culls.*

It's the cull heap that makes the big difference!

The most effective spray program is the most economical. You will be money ahead to stay with the proven ORTHO Program:

. . . ORTHOL-K with the Lead Arsenate Cover Sprays.

. . . Improved Coposil where a fungicide is needed.

. . . ORTHO Spreader to insure quick wetting and thick even coverage.

ORTHOL-K Kills the Eggs

ORTHOL-K, the ORTHO Oil Spray for summer use, kills Codling Moth eggs, reduces "stings," and adds greatly to the effectiveness of the Lead-Arsenate.

Combined with Nicotine Sulphate, it has proven an economical substitute for Oil-Lead Arsenate. ORTHOL-K Nicotine Sulphate is also a good clean-up spray for Red Mites, Scale, Aphids, Leafhoppers, Case Bearers, etc.

IMPROVED COPOSIL, a new type colloidal copper fungicide, is rated as safer than Bordeaux or other copper fungicides for Scab, Brooks' Fruit Spot, Blotch, etc.

An Improved Film Builder

ORTHO SPREADER is an improved film builder for use with Arsenical, Sulphur-Arsenical, Lime-Sulphur, Bordeaux, and other copper sprays as well as Oil-Lead Arsenate.

Write for 1935 ORTHO *Spray Bulletin and full information on the* ORTHO *All-Pest Control Program.*

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ORTHOL-K

ORTHO
SCIENTIFIC PEST CONTROL

& Lead Arsenate with ORTHO Spreader FOR CODLING MOTH

(and 'COPOSIL' for Scab, Brooks' Fruit Spot, etc.)

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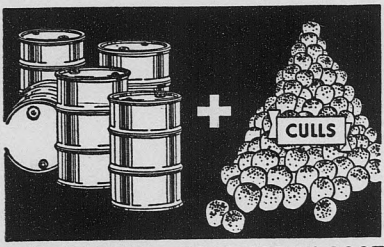
The author gives the following actual figures on a 40-acre orchard.

PRODUCTION COSTS:	1932 Total	1932 Per Bu.	1933 Total	1933 Per Bu.
Wages—Pruning	$ 332.77	.023	$ 393.08	.026
Thinning	186.65	.013	366.43	.025
Mowing and Cultivation including use of Team	259.45	.018	132.82	.009
Fertilizer and Labor applying	125.30	.009	328.48	.022
Spraying—Material used	380.77	.027	446.05	.030
Labor including Team	334.18	.023	264.42	.018
Dep. Repairs, Oil, Gas, etc.	161.94	.011	133.95	.009
Management and Office Expense	380.65	.027	342.50	.023
	$2,159.71	.151	$2,407.73	.162
INVESTMENT CHARGES—On Land Orchard, etc., including Taxes	$2,608.44	.182	$2,689.15	.181
ACTUAL Production Costs	$4,768.15	.333	$5,096.88	.343
HARVESTING COSTS:				
Wages—Picking	$ 614.61	.043	$ 678.78	.045
Grading and Sizing, Packing	866.79	.061	745.44	.051
Hauling from Orchard to Stand, Market, etc.	446.99	.030	172.13	.012
Dep. and Repairs on Equipment	102.62	.007	143.27	.010
Management, Office and Overhead	432.50	.031	419.50	.028
	$2,463.51	.172	$2,159.12	.146
BASKETS, PADS, LINERS, etc.	1,958.18	.137	1,614.12	.109
ACTUAL Harvesting Costs	$4,421.69	.310	$3,773.24	.255
MARKETING COSTS:				
Trucking Charges—own Trucks	$1,088.25	.076	$ 571.56	.038
Traveling Expenses—all kinds	147.53	.010	214.00	.014
Advertising, Labels, etc.	419.04	.030	371.64	.025
Commissions to Jobbers, etc.	309.54	.021	450.58	.030
Telephone and Telegraph	143.24	.010	63.97	.004
Management, Office and Overhead	416.00	.029	635.00	.043
ACTUAL marketing Costs	$2,523.60	.176	$2,306.75	.155
ACTUAL Total Costs—**All kinds	$11,713.44	.818	$11,176.87	.753
ACTUAL CROP—Each Year	14,336 Bu.		14,873 Bu.	

**Storage Charge, Depreciation on Dwelling and other building, and Depletion charges on orchard not included in above. This would bring actual costs near the DOLLAR a BUSHEL mark.

HAVE YOU READ THE ADVERTISEMENTS?

What does it really cost to control CODLING MOTH?



COST + LOSS = REAL SPRAY COST

• The real cost is not the cost of the spraying . . . but the *cost of the spraying* plus the *loss from wormy culls.*

It's the cull heap that makes the big difference!

The most effective spray program is the most economical. You will be money ahead to stay with the proven ORTHO Program:

. . . ORTHOL-K with the Lead Arsenate Cover Sprays.

. . . Improved Coposil where a fungicide is needed.

. . . ORTHO Spreader to insure quick wetting and thick even coverage.

ORTHOL-K Kills the Eggs

ORTHOL-K, the ORTHO Oil Spray for summer use, kills Codling Moth eggs, reduces "stings," and adds greatly to the effectiveness of the Lead-Arsenate.

Combined with Nicotine Sulphate, it has proven an economical substitute for Oil-Lead Arsenate. ORTHOL-K Nicotine Sulphate is also a good clean-up spray for Red Mites, Scale, Aphids, Leafhoppers, Case Bearers, etc.

IMPROVED COPOSIL, a new type colloidal copper fungicide, is rated as safer than Bordeaux or other copper fungicides for Scab, Brooks' Fruit Spot, Blotch, etc.

An Improved Film Builder

ORTHO SPREADER is an improved film builder for use with Arsenical, Sulphur-Arsenical, Lime-Sulphur, Bordeaux, and other copper sprays as well as Oil-Lead Arsenate.

Write for 1935 ORTHO *Spray Bulletin and full information on the* ORTHO *All-Pest Control Program.*

California Spray-Chemical Corporation
150 Bayway Ave, Elizabeth, N. J.
National Stockyards, Ill.
2082-AA Center St., Berkeley, Calif.

DISTRIBUTORS: Central Chemical Company, Inc., Baltimore, Frederick, Hagerstown, Md.

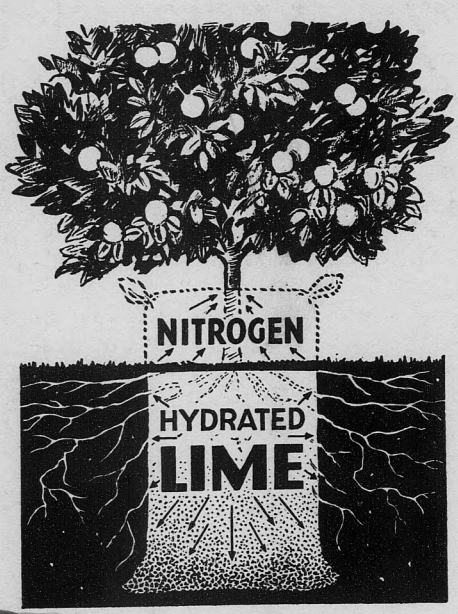
ORTHOL-K

ORTHO SCIENTIFIC PEST CONTROL

& Lead Arsenate with ORTHO Spreader

FOR CODLING MOTH

(and 'COPOSIL' for Scab, Brooks' Fruit Spot, etc.)



'AERO' CYANAMID

22% NITROGEN
70% HYDRATED LIME

The Fruit Fertilizer

It FEEDS the Tree and LIMES the Soil

'AERO' CYANAMID

A non-leaching form of nitrogen
May be applied in fall, winter (in Southern States), or early spring, as one prefers

Feeds the tree throughout growing season
Produces dark green leaves and holds them on until fall (On sandy and shaly soils the supplemental use of potash is recommended)

Keeps the soil sweet and healthy
Destroys acids resulting from use of sprays and cover crops

Produces good terminal growth and fruit buds
Gives bigger yields of better-quality fruit

●

Write for Leaflet X-307, "Fertilizing Fruit with Granular 'Aero' Cyanamid"

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Manufacturers of 'Aero' Cyanamid and 'Ammo-Phos'
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CYANAMID PRODUCTS

'Aero' Cyanamid is Nitrogen plus Lime